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February 7, 2003

Ms. Marlene H. Dortch
Secretary, Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Miscellaneous Proceedings Concerning Advanced Telecommunications Capability -- CC Docket Nos. 98-147, 01-338 and 02-33

Ex parte presentation pursuant to C.F.R. §1.1206(a)(1)

Dear Ms. Dortch:

Catena Networks, Inc. ("Catena") met yesterday, with Lisa Zaina of Commissioner Adelstein's staff. Representing Catena were Gary Bolton, Doug Cooper and myself. During the meeting, Catena reiterated how important it is for Catena and the other telecommunications manufacturers that the Commission adopts rules in the broadband proceedings that will not create disincentives for the incumbent carriers to deploy new packet-based technologies. Catena indicated that it and its competitors are all urging the Commission to adopt national broadband rules that avoid the imposition of unbundling and TELRIC pricing obligations on the incumbent carriers for any newly-deployed packet-based technologies.

Catena expressed its concern that requiring the incumbent carriers to unbundle broadband packet-based services would have the effect of halting most DSL deployment, thereby significantly harming the telecommunications manufacturing sector, which is already reeling from the meltdown in the telecommunications sector. Without an incentive to continue the deployment of current high speed services, there would be no manufacturing base to produce the next generation of high speed services down the road. Catena explained that in light of current technology and economics, ubiquitous fiber to the home deployment is some time away, and DSL can provide higher speeds now (as confirmed by the attached Washington Post story). Catena also explained that Chinese companies are poised to acquire at "distress prices" American technology companies that are likely to shut down operations if a Commission decision on the 13th creates disincentives for deployment of new broadband technology. Indeed, the attached Washington Post article from yesterday's paper confirms that this is already occurring to some degree for Japanese companies.

In addition to this wholesale "export" of technology expertise, there would not be a manufacturing base to provide broadband-capable equipment to rural carriers, even though those carriers are generally not subject to the unbundling requirements of the 1996 Act. Catena previously explained the ability of its technology to serve such unserved and underserved customers, *e.g.*, Catena Reply Comments in CC Docket No. 98-147, filed November 14, 2000 at p. 2; Catena Ex Parte submission filed March 14, 2002. For many rural and suburban residential and small business customers served by remote terminals, such as the 20 million subscribers served by the legacy SLC-5 remote terminals, the inability of incumbent carriers to upgrade those facilities using integrated line cards developed by Catena (because of the unbundling disincentives) would result in, at best, significant delays in their obtaining broadband access, if such access arrives at all. Finally, Catena observed that there will be no "intramodal" competition if the incumbent carriers are disincented to deploy packet-based technologies, so that there would be no countervailing public interest benefits from the contemplated unbundling of packet-based broadband services.

Catena thus renewed its call for the FCC to act promptly and to adopt national policies that will eliminate the current disincentives to investment by the facilities based providers in broadband technologies, and certainly not create any new disincentives. Please contact the undersigned if you have any questions with regard to this submission.

Respectfully submitted,

/s/
Stephen L. Goodman
Counsel for Catena

cc: Lisa Zaina

Washingtonpost.com

Copper Lines Regaining Luster

With the Obstacles to Fiber, Phone Companies Are Tapping the Old Infrastructure

By Jonathan Krim
Washington Post Staff Writer
Friday, February 7, 2003; Page E01

For years, replacing the nation's copper telephone wires with fiber-optic cable has offered a promise of digital heaven: quick downloading of full-length movies from the Internet; phone companies offering television programming to compete with cable; two-way, interactive video for online gaming, education and medicine.

But the regional telephone giants also have warned that as long as they are required to lease those fiber networks to competitors, they will be unwilling to spend significant sums to build them.

Now, with the Federal Communications Commission ready to revamp its competition rules in the next two weeks, many telephony experts, financial analysts and some phone company officials say that even if the former Bell telephone companies get the regulatory relief they seek, fiber to people's homes will remain a far-off dream.

Not only does stringing fiber to the home remain enormously expensive, but advances in technology allow significantly faster connection speeds to be squeezed out of the country's 1.5 billion miles of existing copper lines.

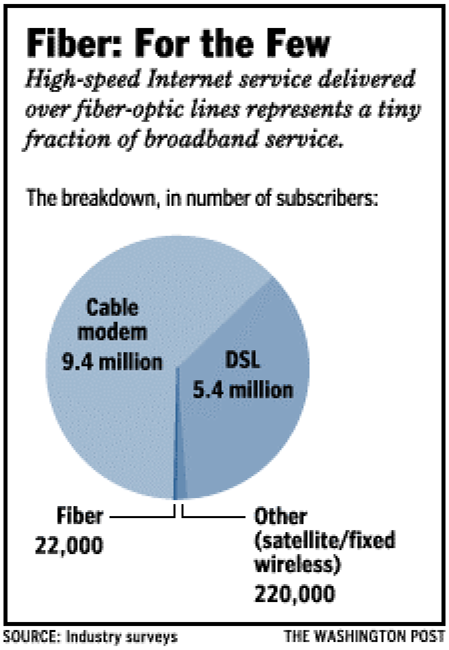
Tests in engineering labs and in a handful of areas around the country are yielding Internet connection speeds five to 50 times as fast as what is now considered "broadband" digital-subscriber-line service offered over phone lines.

"I'm amazed and encouraged with what we can do with our copper network," said William L. Smith, chief technology officer of BellSouth Corp., the regional phone company in the Southeast. "I still want to have fiber to every home and every business, but there's a lot we can do with copper."

Industry giant Verizon Communications Inc., the dominant local phone provider from Maine to Virginia, has run engineering tests in which DSL speeds were increased from a maximum of 1.5 megabits per second to 7 megabits per second, without additional fiber. That would more than enable the video applications that many technology companies say would make broadband more attractive to consumers and jump-start the struggling sector.

Qwest Communications International Inc., which primarily serves the Rocky Mountain region, has for three years served a handful of communities with a full menu of television programming, equivalent to cable packages, over its copper lines using a technology known as VDSL (very-high-data-rate DSL).

"Copper is far from dead," said Steve Starliper, vice president of consumer product management for Qwest, which has 50,000 VDSL customers in Colorado and Arizona.



Although deploying VDSL requires extending fiber lines deeper into neighborhoods, that has cost Qwest far less than it would have had it dug up people's yards or driveways to pull fiber into their houses.

But such advances have drawn little notice in the debate in Washington as the FCC nears decisions on a variety of regulations that will govern telephone and broadband competition.

The former Bells and their supporters continue to press the case that easing their obligations to lease lines to other phone companies would put them on equal footing to compete against cable firms -- and is the key to unlocking investment in a fiber future.

"We cannot expect [the phone companies] to invest in and deploy new facilities when they are required to share such facilities with competitors at below-market prices," said a recent letter to the FCC signed by 22 members of the House of Representatives who support the former Bell companies' position. "While access to broadband services transmitted over copper loops has increased over the past several years, such services pale in comparison to the types of capabilities that consumers could enjoy if fiber accounted for a greater portion of so-called last-mile facilities."

Critics of the former Bells fear that changing the rules would stifle competition for local telephone service and high-speed Internet access, all in the interest of fiber upgrades that the big regional companies have little intention of making.

Some Wall Street analysts say FCC regulations have little to do with why the former Bell companies are not making capital expenditures.

"Myth 1: RBOC [phone company] spending is down because of the current . . . regulatory environment" that discourages investment in upgrading their networks, wrote a team of telecommunications stock analysts at J.P. Morgan Chase & Co.

Instead, like most telecommunications companies, the former Bells binged on spending during the bubble years of the late 1990s, according to the analysts. They added that the companies' targets of spending a collective $19 billion this year is 10 percent less than what they spent in 1995, the year before Congress ordered their networks opened to competition.

Only when the phone companies' core economic picture improves will heavy investment resume, the analysts wrote.

FCC Chairman Michael K. Powell, who recently circulated proposed rules to the other four FCC commissioners, is seeking to ease requirements on the phone companies as part of his broad philosophy that the country needs to migrate to a digital platform.

"The phone companies are sitting on aging infrastructure," Powell said in a recent interview. "Copper wire will end its life."

Sources familiar with Powell's draft proposals say the rules would eliminate leasing obligations for fiber lines built to new residential or commercial developments, where there is no existing telephone service.

Less clear is what the FCC will decide in cases where fiber is driven deeper into neighborhoods before connecting with the copper wires that serve individual homes, or is strung to homes where copper service already exists.

The former Bells want any fiber upgrades to trigger regulatory relief, but sources say the commission is looking at maintaining some leasing obligations based on the extent of the upgrade. Under this scenario, the greater the upgrade to fiber, with corresponding increases in the speed of sending and receiving online transmissions, the lesser the sharing requirements would be.

Many telecommunications experts and industry executives agree that fiber to the home is broadband's Holy Grail, a "future-proof" technology that can offer speeds 100 times as fast as today's DSL and accommodate uses not even currently contemplated.

In the long run, pure fiber networks also are cheaper to operate and maintain than copper or fiber-copper marriages, because fewer switching terminals and other electronics are required. About 22,000 homes have fiber service.

But fiber to the home "is just economically not viable," said John M. Cioffi, a professor of engineering at Stanford University and one of the country's foremost experts on DSL technology. "Even if [the phone companies] had the money, the labor is exhaustive. Realistically, fiber could be a century away."

Cioffi contends that VDSL, a technology that has been around for years, is the only logical alternative. The challenge is to push fiber lines to within 3,000 to 4,000 feet of homes and then hook the copper wires from those houses into the fiber. In this way, Cioffi said, the cost of laying the fiber is shared by many customers. At that distance, speeds of 52 megabits per second are possible, Cioffi said, which is more than adequate for high-end video applications, including high-definition television.

In many cases, the fiber from the carrier's central facility to the neighborhood can be pulled through the same conduits that carry existing phone lines, minimizing additional trenching costs and disruption.

What VDSL provides is what many analysts say is an essential "triple play" of services for the phone companies: telephone, Internet and television programming. Otherwise, analysts say, cable firms -- which already provide Internet and television services -- will add telephone service and leave the former Bells in the dust.

The other regional phone companies have been watching Qwest's VDSL deployment closely but are not sold.

Christopher T. Rice, senior vice president for network planning and engineering at SBC Communications Inc., said his company has decided that pulling fiber all the way to the home is more cost efficient in the long run. But he said extensive stringing of fiber is at least 10 years away.

The former Bells say that any expansion of broadband capability is expensive and will be made based on cold calculations of demand for faster service and how quickly the investment will pay off.

In this challenging economic environment, they argue, every cost, including requirements to lease networks to competitors, must be factored in. They add that in places where their network facilities are so old that they need to be replaced, they are investing to make them capable of handling fiber.

Phone executives point out that even if they could flip a switch today and offer higher speeds to current DSL users, they would have to increase the cost to subscribers to cover the expense of using larger portions of the Internet "backbone," the central pipes that crisscross the country.

And consumers have yet to demonstrate a strong desire for higher speeds. Residential DSL and equivalent service provided over cable television lines rarely provide speeds over 1 megabit per second. And while such service is gaining traction with consumers, at $40 to $50 per month, only 13 percent of households have it.

"We're really focused on our existing DSL products to meet what customers are looking for now," said Peter Castleton, executive director of broadband products for Verizon.

Qwest offers its residential VDSL customers only two speeds, neither of which exceeds what is possible on DSL. Company officials said they are evaluating whether to extend VDSL to more neighborhoods.

Even Grande Communications in Texas, one of a handful of small companies that have strung fiber to residential areas, offers customers a top speed of 2.5 megabits per second, with slower speeds at lower prices.

State regulators, who set certain rules and rates and who oppose changes to the FCC's rules, worry that the former Bells are executing a well-honed strategy: Promise dazzling broadband networks in exchange for regulatory relief, then pull back.

In Pennsylvania, Bell Atlantic, which later became Verizon, promised state regulators in 1994 that over a 20-year period, it would deliver a broadband network capable of speeds of 45 megabits per second, according to public filings.

State public service commission officials say the company has deployed roughly 22 percent of what should be in operation. The commission is considering sanctions against the company.

In California, public service commissioner Loretta Lynch said that SBC and its predecessor, Pacific Bell, did little to deploy high-speed networks, even when they were economically flush.

The regional phone companies have been careful not to make promises. And some technology companies, desperate for broadband deployment to spur new spending and growth, say they understand the Bells' history with regulators.

Any telecommunications investment now is inherently risky, and the government needs to eliminate barriers to help make it more attractive, they say.

"Our support for this is not based on commitments," said Peter K. Pitsch, a lobbyist for Intel Corp. and an organizer of a coalition of technology companies urging the FCC to make changes -- though not to go as far as the former Bells would like. "It's based on the belief that they are more likely to do it if it's more attractive. . . . And in the longer term, they are going to want to do it. And have to do it."

washingtonpost.com

Imperial Irony Building in Japan

As Chinese Businesses Blossom, They Buy Slumping Neighbor's Firms

By Peter S. Goodman Akiko Kashiwagi
and
Thursday, February 6, 2003; Page E01

TOKYO -- It was an unlikely suitor, but he was in no position to be picky. Though his company made some of the world's most sophisticated printing machines, and it was said that he was a brilliant engineer, he was also a miserable businessman. His company was bankrupt. It was this deal or liquidation.

So Yasutaka Kojima, president of the Akiyama Machinery Manufacturing Corp., a fallen champion in once-mighty Japan, began negotiations to hand over his business to a state-owned company from the People's Republic of China. He would seek salvation -- cash, and expertise in the art of capitalism -- from Shanghai Electric Co., a conglomerate still controlled by the Communist government.

That such a transaction could even be considered, let alone consummated as it was last year, attests to a dramatic reordering of economic power in Asia. Flush with cash and intent on expanding into markets around the globe with powerful brands and cutting-edge technology, Chinese companies are beginning to buy distressed businesses in Japan, where a decade-long slump has left many in desperate straits.

This reversal of fortune is filled with historical irony. In the first half of the 20th century, as Japan conducted its imperialistic march across Asia, it ravaged China, occupying territory and seizing materials and machinery. Now, China is crossing the sea in the other direction, bringing home spoils from Japan. Only a decade ago, as Japan swallowed one foreign trophy after another -- Hollywood studios, Rockefeller Center -- pundits proclaimed the era of the Rising Sun, stoking sometimes jingoistic fears of Japanese world domination. Although China, too, was making investments in the United States and other countries, its image remained that of a land of bicycles and rice farmers, with values closer to Karl Marx than Warren Buffett.

But now, at least for the moment, China's brand of business is trumping Japan's. China is booming as it continues its transition from communism. In the past two years, at least seven Chinese companies have purchased majority stakes in such diverse Japanese ventures as metal processing and textile operations, according to Recof Corp., a leading Japanese mergers-and-acquisitions research firm. In most of the deals, the Chinese company has shifted manufacturing to China, where, despite the "Worker's Paradise" label, wages are as little as a tenth of their Japanese equivalents and pressure to retain workers is far lower.

"China is more capitalist than Japan in terms of labor issues," said Akira Kan, president of the home-appliance division of the Japanese giant Sanyo Electric Co., which sold its microwave-oven division to Guangdong Midea Holding Co. in October 2001.

More such deals are in the works. Beijing-based Joco Investment Management Co., a private investment firm, is sniffing out takeover candidates for Chinese businesses in Japan, said its president, Nick Gu. In October, nearly three dozen firms attended a Shanghai government conference on investing in Japan. Late last year, one of China's largest brokerage houses, Tiantong Securities, set up a consulting business, Tiantong Star Investment, to advise government-owned companies on how to buy Japanese firms. It is now brokering the purchase of a Japanese furniture maker by a Shanghai area company, said its general manager, Zhou Bin.

Foiled by the Numbers

Akiyama was founded by three brothers of that name in 1948. Kojima joined as a 15-year-old the following year, as Mao Zedong's forces took control of mainland China. He learned engineering on the factory floor, worked his way up and became president in 1973.

Kojima had a knack for fashioning new products. Under his direction, Akiyama developed machines that can print 13,000 sheets an hour at photographic quality. By the mid-1980s, Akiyama was selling more than $130 million worth of machinery a year worldwide, employing 140 people in its factory in Suikaido City, about an hour from Tokyo.

But Kojima neglected the numbers side of his business. Akiyama opened sales offices in Los Angeles, Dallas Chicago and New Jersey. Each operated as a separate fiefdom, importing machines from the factory. They ordered too many. "The unpaid balances started to pile up," Kojima said.

In 1993, Akiyama filed for bankruptcy. It emerged after some restructuring and business turned around for a bit, propelled by Kojima's latest technological advance -- a machine capable of simultaneously printing on both sides of paper. But that machine provoked a bitter, expensive and ultimately failed patent battle with Akiyama's largest competitor. At the same time, Japan's economy was in the doldrums. In March 2001, Akiyama landed in bankruptcy again.

This time, things looked grim. The only potential Japanese buyers were themselves in hard times. Then, in April 2001, came the intervention of one of Akiyama's customers, a family printing business that makes high-quality playing cards for casinos across Asia. Officials there worried that Akiyama's failure would threaten its own survival.

One of the executives at the playing-card company contacted a former colleague, Kazuhiko Toyama, president of Tokyo consulting company Corporate Directions Inc., which specializes in turning around troubled companies. Toyama wrote a report listing Akiyama's attributes: Its machines were still of the highest quality. Its brand still had value. Bankruptcy would strip away its debt. Toyama set his sights on potential buyers in the developing world.

Two years earlier, Toyama had been impressed when he visited China to explore an alliance with Shanghai Electric Co., which is something like China's version of General Electric and employs more than 100,000 people. Chinese state-owned companies have traditionally been more concerned with preserving jobs and benefits than in turning profits. But under China's reforms, state companies are now under pressure to make money. Shanghai Electric has been quicker to adapt than most. It was already engaged in three joint-venture printing-machine manufacturing businesses with the Morningside Group, a private investment firm controlled by Hong Kong real estate magnate Ronnie C. Chan.

Toyama sent his report on Akiyama to Bob Ching, a former colleague who is now a partner at Morningside. Ching was intrigued. China's printing industry was growing by 30 percent a year. Quality was improving as a burgeoning class of nouveau riche acquired a taste for magazines with shiny photos of modern buildings in Barcelona and models on catwalks in New York. But the high-end machinery was still imported. Shanghai Electric dominated the market for lower-end machines, but its quality was nowhere near Akiyama's.

"We have been looking to upgrade ourselves," said Ching, 61, who fancies himself as a bridge between China's past and its future. He was born in Shanghai and grew up in Hong Kong and Taiwan before settling in the United States. "For us, it was a very natural course of action."

But Shanghai Electric executives wondered whether they had the expertise to oversee Akiyama, which was bigger than any of their operations in China, and whether a Japanese bankruptcy court would sign off on putting Akiyama in the hands of a Chinese state-owned company.

Japan's written language includes traditional Chinese characters. The Japanese word for bankruptcy spells out "born again" in Chinese. Shanghai Electric's leaders wondered if they could really meet such a standard.

When the Chinese executives approached the Ministry of Finance, Trade and Economic Development, they found the government enthusiastic. They could do the deal. But did they want to?

No Longer '20 Years Behind'

Hu Xiongqing, a 55-year-old veteran of Shanghai Electric's printing operations who eventually would become head of the new company, led a reconnaissance effort to Tokyo in June 2001.

When Kojima met Hu for the first time in Toyama's conference room, he mostly listened. He was concerned that the Chinese just wanted to strip Akiyama's technology. He was pleased to hear Hu say -- through an interpreter -- that Shanghai Electric wanted to keep the factory in Japan and saw value in sending people over from China in a sort of apprenticeship mode.

On his trip to China in 1999, Kojima had found that industry there was "20 years behind." But he also saw that China aimed to catch up fast. Now, he was listening to an official from a state-owned company speaking of "returning profit to the shareholder."

"The way he talked was different from our impression of China," Kojima said. "He had a very capitalist point of view. I would be lying if I said the deal didn't strike me as strange. But I saw this as ahead of its time. Mostly, I saw it as a way to move my business."

In early July, Hu visited the factory for the first time and quizzed its managers. He began to understand why Japan is sometimes known as the world's most successful socialist country. Akiyama had failed to press suppliers for lower prices as its scale grew, Hu discovered.

"They were doing a really lousy job controlling costs," he said. "They never tried to bargain. They would pretend to have more money than they did to save face and just accept whatever price for goods they were offered."

Middle management seemed uncreative and ossified. "If they regarded a strategy as correct, they would just do it forever and not react to changing conditions," Hu said. "Their technology was very advanced, but their management concept was very backward. I could see we had the capability to change the company."

But Hu was uncertain whether Akiyama's employees would respond to Chinese management. "Most Japanese have never been to China and they are very arrogant," he said. "They regard that they are an advanced country and China is a developing country: 'How can a less-developed country manage us?' "

Kojima and Toyama assured him that the workers understood their options -- a new boss or no boss. They would adjust. Hu and the executives back in Shanghai decided to go ahead.

On Aug. 8, Shanghai Electric's senior executives gathered in Toyama's office with Kojima and his colleagues to sign a letter of intent to buy the company. Afterward, they shifted to the Metropolitan Hotel in Tokyo's Ikebukuro district for a Chinese banquet. Some toasted the deal with Japanese rice wine; some drank Chinese liquor.

They still had to settle the purchase price, something neither side will discuss, though Japanese news reports have pegged it at $17 million. Talks were slowed as Shanghai Electric executives encountered trouble gaining visas to visit Japan, which treats all Chinese as presumptive economic migrants. The deal closed last February.

According to Hu, Akiyama International Co., as the new venture is known, is already profitable. It has trimmed production costs by 15 percent through aggressive bargaining with suppliers. It has instituted a merit-based pay system, eliminating perks for senior employees while creating opportunities for younger ones.

"We have met resistance," Hu said. "At first, the Japanese managers were very defensive. They wanted us to do everything the same as before."

Hu has fired two people: one for refusing to bargain with suppliers, the other for "general incompetence." But Hu has also hired 16 new employees while swelling the ranks of the factory to 126, more than double the 59 he was required to employ under the purchase deal.

On a recent afternoon at the factory, workers loaded freshly built machines onto the bed of a tractor-trailer bound for the port of Yokohama, where they would be shipped to Cambridge University Press in the United Kingdom to print bibles. Other workers made adjustments to machines destined to make calendars in Spain, covers for compact discs in Japan, travel brochures bearing photos of white sand and emerald water.

Next month, six managers from Shanghai Electric's printing operations at home plan to begin a year-long stint at the factory in preparation for eventually making Akiyama machines in China. That would be "an expansion," a manager was quick to emphasize.

Special correspondent Wang Ting in Shanghai contributed to this report.